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EXTENSION WORK IN FOODS AND NUTRITION, 1923

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PLACE OF FOODS AND NUTRITION IN THE EXTENSION PROGRAM

Among many lines focusing on the goal of a satisfying rural life, the foods and nutrition project holds a prominent place in the extension program. This project aims consciously and directly at developing a sturdy rural population with higher resistance to disease, increased physical and mental efficiency, better earning power, and a sense of greater well-being. It brings about direct financial saving through (1) directing a more intelligent expenditure for food, (2) developing a more adequate and economical food supply on the home farm, and (3) lessening physical disability and expenditures for medicines and medical service. It may contribute directly to the income of the farm family through many phases of food production, preparation, and preservation capable of expansion beyond the needs of the family or the local community.

The foods and nutrition project interlocks with such major agricultural projects as fruit and vegetable growing, dairying, poultry, livestock, farm management, and marketing, as well as with such home-economics projects as household management and clothing. Especially close correlation exists between the foods and nutrition project and work in home health and hygiene. (Fig. 1.)

PROBLEMS RECOGNIZED

Basic problems which call for prompt action and a well-considered permanent program were stated by the nutrition committee of the conference of extension workers of the Western States in November, 1923, as follows:

(1) Poor physical condition of the rural population as evidenced by a high percentage of deviation from the accepted range of weight for height and age in children of preschool and school age, and by a high incidence of physical defects and bodily maladjustment directly traceable to poor nutrition in adults as well as in children.

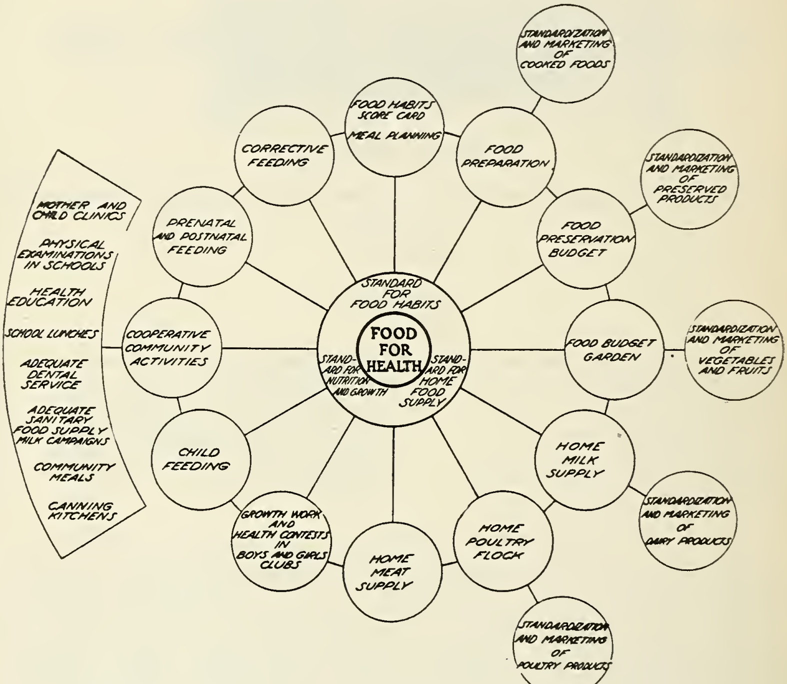
STANDARDIZATION AND MARKETING OF COOKED FOODS
FOOD HABITS SCORE CARD
MEAL PLANNING
CORRECTIVE FEEDING
FOOD PREPARATION
STANDARDIZATION AND MARKETING OF PRESERVED PRODUCTS
MOTHER AND CHILD CLINICS
PHYSICAL EXAMINATIONS IN SCHOOLS
HEALTH EDUCATION
SCHOOL LUNCHES
ADEQUATE DENTAL SERVICE
ADEQUATE SANITARY FOOD SUPPLY
MILK CAMPAIGNS
COMMUNITY MEALS
CANNING KITCHENS
PRENATAL AND POSTNATAL FEEDING
FOOD PRESERVATION BUDGET
STANDARD FOR FOOD HABITS
FOOD FOR HEALTH
STANDARD FOR NUTRITION AND GROWTH
STANDARD FOR HOME FOOD SUPPLY
COOPERATIVE COMMUNITY ACTIVITIES
FOOD BUDGET GARDEN
STANDARDIZATION AND MARKETING OF VEGETABLES AND FRUITS
CHILD FEEDING
HOME MILK SUPPLY
STANDARDIZATION AND MARKETING OF DAIRY PRODUCTS
GROWTH WORK AND HEALTH CONTESTS IN BOYS AND GIRLS CLUBS
HOME MEAT SUPPLY
HOME POULTRY FLOCK
STANDARDIZATION AND MARKETING OF POULTRY PRODUCTS

FIG. 1.—Suggested representation of the foods and nutrition project showing the relation of selection, preparation, preservation, production, income yielding, and community phases to the central idea of food for health and to the standards by which results may be measured

(2) A food supply inadequate for health in sections of many States, coupled with poor distribution of available food products.

To the above might well be added three contributory causes:

(1) Lack of training in visualizing a standard of healthy childhood toward which to build.

(2) Poor food habits, due to lack of understanding of the intimate connection between food habits and health and of the foods needed for a well-balanced diet.

(3) Lack of skill in preparing the needed foods.

Although the problems listed were outlined for 11 Western States, there is abundant evidence that with the possible exception of poor distribution of food products the same problems are common to the entire country. Typical statements from 1923 extension reports are quoted in illustration:

In Arkansas the chief problem in foods and nutrition is that of the malnourished family. This condition is due not to lack of food but to incorrect habits, which often result in subacute deficiency diseases and undernourishment in children and adults. This is especially true among rural women, many of whom must struggle with ill health in addition to their other heavy burdens. Chronic constipation is an almost universal complaint among them and is a predisposing cause to various serious ailments.

In Nebraska complete records were obtained of the food habits of 206 farm boys and girls who attended club week on the agricultural college campus in June, 1923. These boys and girls represented farm-home conditions from all parts of the State and of all degrees of financial welfare. Twenty-one per cent of them were more than 7 per cent underweight. Only 50 per cent drank any milk and only 25 per cent drank three cups of milk daily. Only 53 per cent of them ate vegetables other than potatoes once a day.

LINES OF WORK CARRIED ON

The main lines of work carried on in nutrition in 1923 were (1) improvement of food habits through result demonstrations[1] in food selection for the family, including demonstrations in special modifications of the food-selection standard suitable for the expectant mother, the nursing mother, the preschool child, and the child old enough to be in school, and also for the correction of constipation or of too great deviation from normal weight; (2) food preparation, with special emphasis on foods included in the food-selection standard; (3) food preservation or conservation, including storage; (4) development of the food supply through (*a*) the family fruit and vegetable garden, (*b*) food-preservation budgets covering fruits, vegetables, and other foods, (*c*) introduction of the family cow and the improvement of milk products, and (*d*) increase of eggs and poultry; (5) related community activities, such as the hot school lunch, nutrition demonstrations, health education with groups of school children, and the improvement of community meals and the community food supply; and (6) income-producing activities growing directly out of the foods and nutrition program, such as the standardization and marketing of canned and preserved products, cooked foods, surplus fruits and vegetables, surplus milk, cream, butter, cheese, and poultry products.

ORGANIZATION

The foods and nutrition project was carried on by local people organized for extension work by communities and counties, with the advice and help of county extension agents and State extension specialists in nutrition and related subjects.

In carrying out the county program the county extension agent was responsible for organizing and supervising the project, for collecting records, and for reporting results. If this agent had sufficient training and time to handle the subject-matter instruction, she (or he) acted also as subject-matter leader, usually according to a plan worked out by the nutrition specialist and perhaps demonstrated at an extension conference or at a community group meeting. Specialists working in counties without home demonstration agents, as they did during 1923 in a larger number of counties than ever before, carried the entire subject-matter leadership for most phases of the project. This, however, did not relieve the agricultural agents in such counties of the responsibility of organization and supervision. Up to a certain point excellent work can be done through local leaders in counties having agricultural agents if the agent gives the necessary attention to organization and publicity. This statement is borne out by records from 188 counties where some phase of the project was carried on by agricultural and club agents with the help of the nutrition specialist.

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[1] A result demonstration is a demonstration carried on by a farmer, farm woman, boy, or girl under the direction of the extension service, involving a substantial period of time, records of results, and comparisons.

The foods and nutrition specialist was the responsible leader of the project in the State. She studied conditions, advised as to program and methods with the State staff, county extension agents, and county or local committees, guided educational publicity in the county, demonstrated effective methods and trained the agent to use them, prepared mimeographed or printed instructions in subject matter and methods for both adults and juniors, suggested illustrative material, outlined result demonstrations, and prepared record forms for tabulating results. Frequently she trained groups of local leaders to handle limited fields of instruction under supervision of the agent for both senior and junior work. In most States she helped plan club contests, taught agents to train contestants, judged at contests and fairs, and helped to prepare the extension exhibit for the State fair. She made or helped to make State contacts, and in some cases organized a State publicity program to promote acquaintance with plans and accomplishments under the project and to win support for it. She prepared a comprehensive annual report of extension work as conducted in her project over the entire State.

A third and indispensable factor in promoting extension is the local extension organization, with its community and county officers and committees and its community groups of men, women, boys, and girls, who are working to bring about improved conditions in their homes and in their communities. Results of extension work are measured in terms of the improvement thus brought about, rather than in terms of the activities of extension workers.

By this standard the foods and nutrition project, especially in its food-selection aspect, showed a greater advance in 1923 than in any previous year. Some phase of the project was carried on by 1,101 county extension agents, reaching 12,725 communities. From 738 of these agents 114,589 result demonstrations were reported. In addition to these demonstrations, records show that 285,933 women in different homes adopted one or more of the improved practices recommeded. A statistical summary of results appears on page 30.

A convincing mark of progress is the greatly increased number of women who served as local leaders. These leaders passed on the training received from the nutrition specialist or home demonstration agent to groups of women in their own neighborhoods, conducted and helped to supervise result demonstrations, collected records of practices adopted and persons benefited, and acted as permanent local centers of information, enthusiasm, and influence. Records for the year show that 15,619 women in 898 counties gave an equivalent of 39,806 days of service as leaders in forwarding the work. Another mark of progress is the number of cooperative relationships entered into or greatly extended during 1923, both within the extension service and between the extension service and other county and State organizations.

PERSONNEL AND FUNDS

Thirty-six States employed 54 full-time and 2 part-time specialists to guide different phases of the foods and nutrition project in 1923, an average of 1.5 specialists per State. New York employed 5 and Iowa 4 specialists. Twelve States employed 2 specialists each, and 23 States employed 1 specialist each, 2 of them supplementing full-time with part-time specialist work. In 10 of the 12 States not employing full-time nutrition specialists, the State home demonstration leader served as part-time specialist. The 36 States made an investment in full-time specialist leadership at the annual rate of about $148,000, or an average of approximately $4,100 per State, although new appointments and temporary vacancies made the actual expenditure somewhat lower.

The foods and nutrition project was served in the Department of Agriculture by one extension agent in the Office of Cooperative Extension Work, who cooperated with the Bureau of Home Economics. This worker extended to the States results of department research in foods and nutrition; kept in touch with work of State specialists through field visits, correspondence, and the study of annual reports; carried from one State to another information regarding extension methods and results; and prepared an annual report on foods and nutrition covering work done in the 48 States.

HISTORICAL APPROACH TO THE WORK

The foods and nutrition project has had a natural growth fostered by (1) the increasing interest of the public in health measures, especially as they affect the welfare of children; (2) the economic stringency among farm people, which has encouraged home production and the "live at home" idea; and (3) the better organization and improved methods developed as a result of the three sectional conferences of nutrition specialists held during the winter of 1920–21. Since this growth has differed somewhat in different sections of the country, a brief survey will be necessary to a better understanding of existing similarities and divergencies.

In the Southern States home demonstration work from its inception in 1908 took an important place in the movement for diversified farming. The average farm food supply was so inadequate that good food habits could not be hoped for without preliminary or at least parallel work in productive activities like gardening, fruit raising, dairying, and poultry raising. Accordingly the home demonstration program was built on a foundation of productive farmstead activities for girls and women. From this point it developed along two well-defined lines. One led from production to utilization and preservation of food, and to better living through a more varied diet, better-prepared food, and an understanding of the needs of the body. The other led from food production to better living through profits from the sale of surplus products, with all that this implies in standardization, grading, and marketing.

In this group of States, with some exceptions, the production, preparation, preservation, and marketing phases of foods and nutrition work have been more fully developed than has the food-selection phase. Several causes have combined to bring about this result: (1) The acute need of diversifying the system of farming, developing a farm food supply, and supplementing the scanty income of the farm; (2) the availability of specialist leadership in agricultural lines and the dearth of it in home-economics lines; (3) the lack of trained home-economics workers on whom to draw for the early home demonstration agents; and (4) the fact that nutrition subject matter was not yet definitely applied in the form of standards for daily food habits.

In the Northern States, on the other hand, diversified farming was the prevailing system when home demonstration work was begun in 1914. In many States milk, fruit, eggs, and poultry were important cash crops or recognized side lines in the farm business. Creameries, cheese factories, and canning factories had grown up to care for local surpluses; and any rural home, if it wished, might have had an adequate food supply. Food production and marketing activities were part of the farm business and were already being handled by the county agricultural agents. Farm incomes were, as a rule, fairly comfortable. The first State home demonstration leaders and home demonstration agents in this part of the country had good training in home economics but none in agriculture. Therefore the early home demonstration programs emphasized food selection and preparation, urged preservation for home use rather than for sale, and did not stop to inquire whether the farm food supply was adequately developed. Home demonstration projects were correlated only slightly with the work of agricultural specialists, whereas specialist leadership in food selection, preparation, and preservation was fairly adequate. Work in food selection, however, lacked definiteness, as nutrition subject matter had not yet been reduced to simple rules for daily living.

This last difficulty was measurably remedied by the three sectional nutrition conferences of 1920–21, attended by the nutrition specialists or home demonstration leaders of most of the Northern and several of the Southern States. These conferences shifted the aim of food-selection work from the presentation of nutrition subject matter to the building of good food habits and the demonstration of the relationship between food habits and physical condition. They set up a food-habits standard based on essential foods known to be neglected in the average diet, and integrated the entire foods and nutrition project around it.

The nutrition conferences, therefore, began to draw the programs of the two groups of States closer together, not only because the use of such a food-habits standard simplifies nutrition teaching and harnesses it to the result demonstration, but because it automatically reveals existing deficiencies in the food supply. Thus food preservation, food storage, garden planning, and other food-producing activities on the budget basis become recognized agencies for meeting the requirements of a definite food-habits standard, as do certain community activities.

DEMONSTRATIONS IN IMPROVING FOOD HABITS

FEEDING THE FAMILY

Work to improve food habits is organized under various names, as, for example, feeding the family, meal planning, food-selection demonstrations, or score-card demonstrations. To place this work on a demonstration basis and obtain measures of benefits reaped as well as of progress made, it is necessary to have a uniform food-selection standard and to find indicators of physical adjustment known to be affected more or less directly by food habits. Most States now are using a food-habits standard cast in score-card form, and many have adopted a brief list of so-called health indicators, which includes normal weight-height relationship and freedom from constipation, recurrent colds, headaches, digestive disturbances, undue fatigue, and nervous irritability. A typical food-habits score card follows:

FOOD-HABITS SCORE CARD FOR ADULTS

Supplement the foods listed with bread, butter, potatoes, eggs, meat, fish, and other commonly used foods, and you will have a well-balanced diet. The score card simply helps you to follow certain essential food habits which are often neglected.

Food and daily credit	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Milk:[1] 2 cups 20 1 cup 10							
Vegetables other than potatoes: Twice 20 Once 10							
Fruit: Twice 20 Once 10							
Raw vegetable or raw fruit or canned tomatoes: Once 10							
Whole-grain products (bread or breakfast food): Once 10							
Water: 6 glasses 20 4 glasses 10							
Daily score							

Average of daily scores ----------

Deduct from average of daily scores:

10 points for eating greens less than three times weekly ----------

10 points for eating sweets between meals ----------

Total deductions from average ---------- ----------

Weekly score ----------

---

[1] Buttermilk or skim milk may be used.

It will be noted at once that this score does not represent a complete dietary. It was devised to bring about needed changes in food habits, and therefore lays emphasis upon necessary foods known to be neglected. The score card quoted shows the standard that is being held up for the so-called protective foods; namely, milk, three to four cups daily for children, 2 cups daily for adults; vegetables, two daily (exclusive of potatoes) with special emphasis on green, leafy vegetables; fruits, twice daily in some form; a raw fruit or vegetable or canned tomato once a day (included in the fruit and vegetable allowance); whole-grain bread or breakfast food once a day; and plenty of water. In addition, most score cards require deductions for food habits considered harmful. Used by itself, such a score might perhaps prove misleading. This has not happened, however, since the score card serves as an introduction to more complete study of body needs and food values. Although the scores in use are very similar, a uniform score has not been adopted by all the 48 States. Each State tends to shape its score to bring about needed improvements in food habits, and to weight credits and deductions accordingly.

Food-selection demonstrations have generally been organized as a series of four to six meetings at monthly intervals, one of which is a round-up meeting or achievement day. Thus the project has extended over a number of months, allowing time to form desirable points of view, establish practices, and obtain real measures of results. The method of attack is to show the value of health and to explain what is meant by a well-built body in good working order. Members of the group then rate themselves on physical adjustment by means of the "health indicators." Next they score food habits. This establishes the base line for the score-card demonstration and indicates the direction in which improvement is desirable. Those enrolling as demonstrators are asked to score the food habits of each member of the family, record his state of physical adjustment, and begin to improve food habits.

The second meeting thus finds each member with problems to work out and a number of questions in mind. These problems may lead to supplementary result demonstrations, such as relieving obstinate cases of constipation, regaining normal weight, or feeding expectant mothers or young children. Deficiencies in the food supply may show the need of a food-preservation budget, a food-garden plan, or a family cow. All members want to know why the score card includes the foods it does, and what contributions other common foods make to body needs. Many do not know how to prepare the recommended foods palatably, or with sufficient variation. A selection is made of the most important needs, and they are taken up in succeeding meetings. Care is exercised to see that some practical application of the work of each meeting is made before the next, and that improved practices adopted and beneficial results obtained are recorded. Simple discussions of body needs and food values are included, as well as help in preparing menus. Related community demonstrations, such as putting the hot lunch into a rural school or improving the menus at community gatherings, grow out of the group work. At the close of the demonstration period each demonstrator hands in a report of changes made in food habits and resulting improvements in physical adjustment.

The climax may come at a special achievement day or rally meeting where results are reported, exhibits are made, and plans for enlarging the work are discussed. Exhibits are often made at the county fair.

Putting food-selection work on the demonstration basis has not only greatly increased the interest of individuals and of the community but has led to more complete records of practices adopted and benefits gained and a much wider spread of influence in the community. More important than all these, it has made possible the use of trained local leaders to multiply the efforts of the nutrition specialist and the home demonstration agent. Valuable as is this multiplication of effort, the well-trained, successful local leader renders an even greater service as a permanent center of influence, enthusiasm, and follow-up activity in her own community. Following is an excerpt from a report of a local leader in Sacramento County, Calif.:

> In my own family one underweight, anemic boy of 17 has become rosy-cheeked and husky due to increased consumption of milk and vegetables. Another son who had been living away from home and who complained constantly of "sour stomach" was put on a diet of fresh vegetables and fruit and other simple proper foods. His progress was remarkable. Still another young man who has come to live in my family has become a different man after six weeks of proper food. He leads a sedentary life and was suffering from a chronic case of constipation and hemorrhoids. His dresser is now free of the many bottles of pills and nostrums of all sorts which were there formerly. Many other families in our center have made similar progress. Now that we have discontinued using so many starchy and concentrated foods and have increased the consumption of vegetables, the health of many families is better than it has been for years.

RESULTS FROM USING THE FOOD-HABITS SCORE CARD

Perhaps extension workers have merely followed the trend of the times in the use of score cards during the past three years. It seems certain, however, that much of the great success achieved in the foods and nutrition project is due to this device. Annual reports of extention agents indicate that the score card, both in teaching and as an incentive to action, has been unusually effective in the work in family food selection, in health, and in growth standards and food habits for club members.

A number of States have used the score card as a guide in outlining programs for girls' meal-preparation clubs. After the club members have scored their own food habits, weighed and measured one another, and rated themselves by the other health indicators, they quickly see what foods they should emphasize in their meal planning and should learn to prepare with special skill.

The score card crystallizes subject matter, bringing out essentials and eliminating nonessentials. It sets a standard, proposes definite rules for action, and provides an incentive for carrying them out. Moreover, the score card has made possible a survey of rural food habits with regard to the protective foods and has provided a measure of the progress made as a result of extension teaching. This is shown in the following figures submitted by New York State in its report for 1923:

> Of 1,964 families whose food habits were scored for the first time, 27 per cent of the individuals scored below 60 per cent, 42 per cent scored between 60 and 80 per cent, and 30 per cent scored 80 per cent and over. After a period of several months, during which the individuals studied food selection under local leaders, about half of these families were rescored, and it was found that only 13 per cent of the persons scored below 60 per cent, 37 per cent scored between 60 and 80 per cent, and 50 per cent scored 80 per cent and over. It has been found in this State that by making systematic provision for an adequate food supply through food production and a food-preservation budget, the average farm family during the second year can raise its food-habits score about 10 per cent above the best record it can make the first year of scoring.

CORRECTIVE FEEDING

Work in corrective feeding develops naturally from the food-habits demonstrations. The procedure and the reasons for each step are thoroughly discussed with the prospective demonstrator, and she is advised to consult her own physician to learn whether there are special conditions which make it unwise to attempt the recommended adjustments in food habits.

The corrective-feeding demonstration most frequently carried on is for the relief of constipation. A large number of States have now published mimeographed or printed directions for preventing or relieving this very prevalent difficulty through dietary adjustment and exercise. Out of 272 families in Oklahoma carrying on the food-habits demonstrations, 354 persons reported overcoming constipation, 22 of the cases having been especially obstinate.

Result demonstrations have been carried on in a number of States to reduce moderate degrees of overweight in adults and to increase weight. Such demonstrations require somewhat more determination than does the demonstration for the relief of constipation, but results have been good. New York has outlined a result demonstration in relieving indigestion.

It is not uncommon for several members of a family to carry on demonstrations in corrective feeding simultaneously. Reports giving typical results of this work follow:

> A result demonstrator who had suffered from a severe case of constipation for several years was enrolled from one of the California farm-bureau centers. She started on a diet including plenty of fruits, vegetables, and roughage, and began recommended exercises. She soon reported that she was feeling better, and that she had completely overcome her trouble. Her appearance has also improved. She also helped her daughter who was suffering from the same trouble. As a result of this demonstration seven other persons in this center requested help on corrective diet.
>
> Mrs. Blank, of Oklahoma, was overweight, and her husband was seriously underweight and suffering with stomach trouble. One boy was overweight and another was underweight. By eating more greens, carrots, tomatoes, fruits, whole-wheat bread, and whole cereals, and cutting down on fats, starch, and sugars, Mrs. Blank and Harold lost some of their surplus weight. At the same time Mr. Blank and Ernest began to gain weight. When Mr. Blank was reexamined for life insurance his doctor expressed surprise at his rapid improvement, and assured Mrs. Blank that if she kept up her good work she would soon have a perfectly well husband.

PRENATAL, POSTNATAL, AND INFANT FEEDING

The nutritive condition and the food of the expectant mother influence the physical vigor of her offspring and the quality of its bones and teeth. Her nutritive condition and her diet during the nursing period influence the quantity and quality of the milk flow. Studies of infant-mortality statistics in eight cities by the Children's Bureau of the Department of Labor show a loss of almost four times as many artificially fed infants as breast-fed infants during the first year of life. Hence, a proper diet for the expectant and nursing mother is of the utmost importance. Since this requires only slight modifications of the adult food-habits standard, it is logical for the extension service to consider these modifications in connection with other food-selection demonstrations and to offer its cooperation to the division of maternity and infant welfare of the State board of health, with the idea of working out a joint program and especially of insuring the use of mutually acceptable feeding schedules and other material. Such cooperative plans have been worked out in a number of States.

Although many States reported discussing food for the expectant and nursing mother in connection with family food selection, only a few States reported well-developed result demonstrations. Of these, New Jersey's young-mothers' project is probably the most complete, having reached the stage where it is being presented to community groups by local leaders who have been trained by the nutrition specialist and are being closely supervised by the home demonstration agent. The subject is presented in four consecutive meetings at monthly intervals. Three result demonstrations are outlined: (1) Food for the expectant mother, (2) food for the nursing mother, and (3) feeding and care of the child for the first two years.

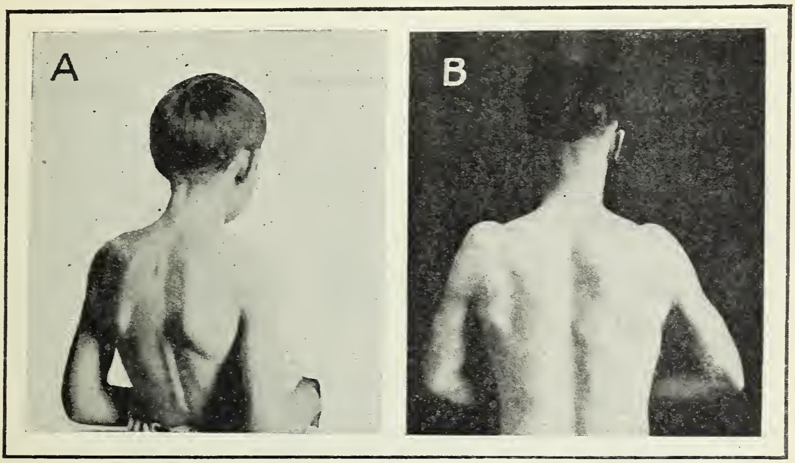

FIG. 2.—Comparison of poorly developed and healthy bodies. The boy at the left has a weak, rachitic back because of improper nutrition, and the other boy has a sturdy, athletic back. Surveys show that in the United States one to two children out of every five are in poor nutritive condition because of faulty food habits, insufficient sleep, and uncorrected physical defects. Extension workers in 1923 conducted 13,509 demonstrations in care and feeding of children. (Photographs furnished by New York and Colorado Extension Services)

Utah has employed as hygiene specialist a public-health nurse, who, with the nutrition specialist, worked out a result demonstration in prenatal, postnatal, and infant care and feeding. California outlined a mother-and-child project. New York reported adding a mother-and-child demonstration at the close of 1923.

CHILD FEEDING

The child's body is in process of active and continuous building from the beginning of the prenatal period until about the twentieth year. Good food habits, started in early infancy and continued throughout the preschool and school period and beyond make for a steady, normal development of the bones, teeth, muscles, blood, and nervous system, and give the child more than an even chance in life. (Fig. 2.) Bad food habits during these years tend to interfere with normal growth and impose a needless handicap. Comprehensive surveys show that in the United States one to two children out of every five are in poor nutritive condition because of faulty food habits, insufficient sleep, or uncorrected physical defects. Child feeding, therefore, is the very kernel of the nutrition program.

Reports like the following illustrate home conditions that lie back of some of the more serious cases of undernourishment:

> One mother of five children, who enrolled for a feeding-the-family demonstration in Ohio, was giving the children coffee and pancakes for breakfast; bread, jelly, apple pie, and fried cake in their school lunch boxes; and boiled rice, fried potatoes, and bread and butter for supper. The children were underweight and always sick. Through the feeding-the-family demonstration the mother was induced to give each child a quart of milk a day and a variety of vegetables and cereals. Her children soon began to gain in weight, came home from school with good reports, and slept all night. The father said he would rather spend $10 for milk and have the comfort of knowing his children were well than spend $5 for a doctor's services.

Reports record that 13,509 result demonstrations in child feeding and care were completed or carried through the year in 368 counties. In 183 of these counties, the total number of children included was 39,452. In 70,359 homes, practices in child feeding and care were definitely improved, affecting 146,172 children. As a number of agencies are working in this field, a coordinated program of work is needed urgently in each State, to enable each agency to take appropriate part in a concerted plan of action. The doctor, the nurse, the nutrition worker, the school, and the local people can work to better advantage together than they can separately. New Hampshire and Delaware reported complete correlation of State programs, and a number of other States reported preliminary steps. The cooperative State program was one of the cardinal points in the nutrition program indorsed by the Western States conference in November, 1923.

Child-feeding demonstrations have originated in a number of ways: As an outgrowth of the feeding-the-family demonstration; as preschool groups; as follow-up from child clinics; and as outgrowths of such community activities as the hot school lunch, the nutrition-health demonstration, and health education, in which the child himself acts as demonstrator with or without the cooperation of the parent. A recent and promising type of child-feeding demonstration is the growth work for boys' and girls' clubs.

FEEDING PRESCHOOL CHILDREN

Certain practical difficulties hamper the rapid development of this line of work, and probably explain why only about a dozen States reported work with preschool children in 1923, all but one on a comparatively small scale. The busy mother of young children finds it unusually difficult to attend meetings, especially if she must take the children with her. Bad weather and great distances are other drawbacks. Plans for group meetings must be made for propitious seasons of the year and are subject to unforeseen interruptions. The alternative of carrying on the work entirely through home visits limits it to a small number of homes per county and deprives the agent to some extent of the services of the specialist. The establishment of preschool child centers and clinics and the expansion of maternity and infant welfare divisions of State boards of health will help to meet the need. Here again is an opportunity for discussion of mutual problems and the working out of a joint program.

Any really far-reaching plan for work with preschool children must provide for locating and interesting these tied-down young mothers, and either for lessening their burdens of housework and child care through organized neighborly service on days scheduled for meetings or for carrying subject-matter information to individual homes through especially trained local leaders or home demonstrators. New York and New Jersey reported beginnings in this direction. Nevada reported that, in preschool groups, individual mothers took turns in bringing toys and amusing the children so that the group discussions might proceed without interruptions. Connecticut tried the plan of having the nutrition specialist write a series of six monthly letters to mothers of preschool children whom the agent or specialist can meet only at long intervals but who want help. Missouri held demonstrations in care and feeding of the preschool child. South Carolina gave lecture demonstrations in 34 counties. Washington, Oregon, and other States found cooperative clinics for the preschool child a useful means of developing interest in the problem. In such clinics each child was given a thorough physical examination, and constructive suggestions for care and feeding were made to mothers. (Fig. 3.) For necessary treatment, the mother was referred to her own physician. The clinics were arranged by organized community groups like the parent-teachers' association, the extension service, and the antituberculosis association. The services of local doctors and nurses and of visiting child specialists were obtained, or, in some cases, county medical associations volunteered to take over the examinations. The nutrition specialist or agent made the local arrangements and trained leaders to assist and to guide mothers from one section of the clinic to another. After the physical examination the nutrition specialist conferred with

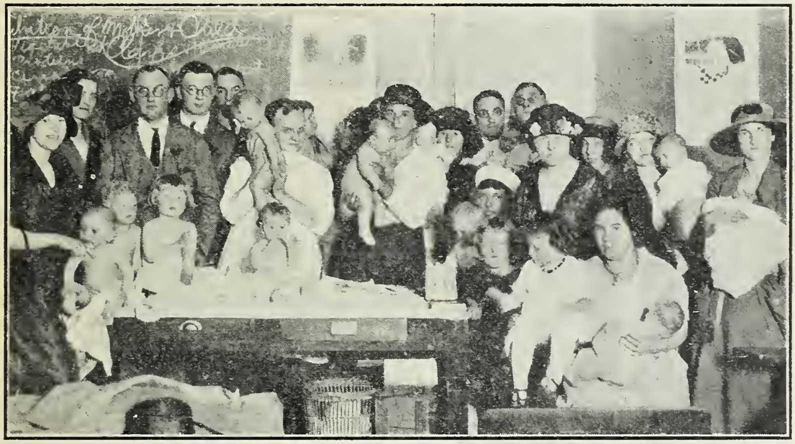

FIG. 3.—A clinic for preschool children, organized by the extension service in cooperation with local doctors and nurses. The State dental association made available a pediatrician, who examined 42 children, and the State nutrition specialist discussed diets with the mothers. One of the results was the formation of a demonstration club for mothers of preschool children. (Photograph furnished by the Washington State Extension Service)

each mother and indicated suggestions for feeding. This work is valuable in proportion as it is followed up by result demonstrations in preschool feeding carried on by local mothers and by a spread of influence from demonstrations. A particularly effective form of follow up is the type described under "Standards of nutrition and growth."

STANDARDS OF NUTRITION AND GROWTH

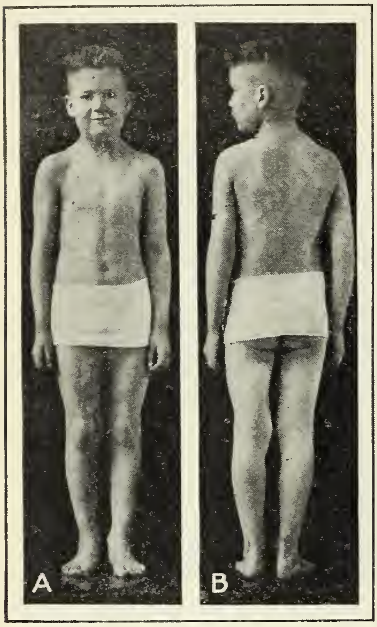

FIG. 4.—A boy selected for a lecture demonstration on standards of nutrition and growth. He is, in many respects, a well-developed child, but the enlarged knee joints and ankle bones, the slightly bent leg bones, and the lowered arches point to faulty bone growth. A more completely balanced diet on the part of the nursing mother or of the young child probably would have insured perfect bone growth. (Photograph furnished by the Utah Extension Service)

Utah has developed a unique piece of work in her "standards of nutrition and health" project for the parents of preschool children. The fundamental objects of the project are to promote visualization of the points of the healthy child and to give training in recognizing common deviations from the standard that are largely preventable by right living. (Fig. 4.) This system introduces and motivates a correlated project in child health, carried on jointly by the specialists in nutrition, in health, and in clothing. It is contended that in order to work intelligently and with sustained interest the result demonstrator in the child-feeding project must have standards for positive health, as well as directions for practices. Accordingly, a score card has been prepared, featuring the points in general appearance, muscular and bone development, posture, functioning of the body, and nervous control that are surface indications of normal health—points which it is believed every parent should learn to watch. In illustrating this normal standard, the healthiest preschool child available is judged by using the score card. Common deviations from the standard are shown by slides, charts, or photographic enlargements, but the visual picture built up in detail is that of the optimal child. The State home demonstration leader of Utah reported that in developing the project—

> The specialist or agent trains three leaders from each locality requesting the work at some central place for a day and then accompanies them into their respective communities to give the demonstration lecture to their home cooperators. The optimal child is first demonstrated; then any six children in the group are scored. The local leaders follow up the work during the two succeeding months, weighing the demonstration children monthly, rescoring them at the end of the second month, and reporting improvements in habits or appearance.

To create interest in the work the nutrition and growth standards have been demonstrated at the farmers' summer encampment and at county or district meetings of parents.

Training in health standards is educationally sound. The preliminary judging acquaints parents with weaknesses to be corrected or avoided and opens the way for discussions of feeding practices in relation to body weight, bone development, muscle and blood functions, posture, and the like, and for related result demonstrations. The prevention and correction of faulty posture, weak arches, and other difficulties through exercise, health habits, and hygienic measures are shown by the health specialist; the clothing specialist discusses clothing for children in its relation to health. "This has given us a more satisfactory unification of work than any other method we have yet tried," reported the Utah State home demonstration leader, "and we find that we are developing a correlated program of home health and economy."

The method of visualizing optimal physical development at different ages is developing in the extension field, although no other State reports an equally intensive use of this method.

GROWTH WORK WITH BOYS' AND GIRLS' CLUBS

The country boys and girls of to-day will be the men and women of the rural communities of the future. Therefore our boys' and girls' clubs present an opportunity to forward the permanent nutrition program that extension workers can not afford to overlook.

Club programs have emphasized standards, judging, and demonstrating improved practices which meet specific community needs. Then why not train every club member, in correlation with his work with crops, livestock, foods, or clothing, to be a discriminating judge of healthy boyhood and girlhood and to demonstrate to his community the food and health practices by which good physical development and adjustment are gained and maintained? This would mean the systematic development of the fourth or "health" H in the 4-H club emblem.

That there is a real need for this work is shown by the fact that many States reported that large percentages of rural children were underweight and had indifferent food habits. The following excerpt from an Alabama report is representative of many 1923 reports of extension agents:

> At the Tuscaloosa camp I weighed and measured the club girls and found that exactly 50 per cent were 7 per cent or more underweight. It was most interesting to see the contrast in appearance and to note the impression made on the girls when I had them stand in two lines, with those decidedly under the average weight on one side and those near the average on the opposite side.

Reports show that the idea of systematic growth work for all club members is developing. Nearly half the States are using the food-habits score card for some or all of their clubs; several popularized the standard for the 100 per cent club member. (Fig. 5.) Weighing, measuring, physical examinations, food and health habits, and systematic exercises are featured at county and State club gatherings. Several States hold county and State health contests for club members. The health contest for club members was one of the big events at the International Livestock Exposition at Chicago in December, 1923.

Club camps and short courses offer a splendid opportunity to introduce the idea of systematic growth work to county extension agents, local club leaders, and representative club members, preparatory to taking it up on a state-wide scale through leader-training groups.

COMMUNITY ASPECTS OF FOOD SELECTION

A well-rounded nutrition program for the rural home leads inevitably to the establishment or improvement of a number of community institutions and services, and brings the extension service into constructive relations with other educational organizations working for community betterment. Community activities of local extension groups under the leadership of extension agents have been numerous and varied. Among the most frequent have been improvement of menus for community gatherings, the hot school lunch, and leadership in nutrition demonstrations and in health education in the schools.

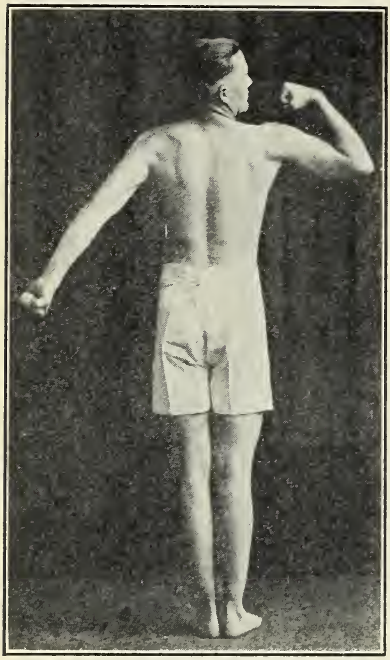

FIG. 5.—A club member should be his own best exhibit. This Colorado 4–H club boy won the national health championship at Chicago in 1923 over 1,600 other club members from all parts of the country. (Photograph furnished by the Colorado Extension Service)

IMPROVING MENUS FOR COMMUNITY GATHERINGS

Most States have emphasized in one form or another the palatable, well-planned, and easily prepared family meal. It has been a natural step to apply the same principles to meals for community gatherings. In several States groups of women enrolled for food-habits demonstrations under local leaders have undertaken to serve demonstration community meals, where a report on nutrition work in the community is given. The specialist has frequently provided suggestions for making the affair a social as well as a culinary success. A New Hampshire demonstrator reported:

> My food-selection report is a bit unusual. We run a summer hotel, and try to put such foods on our bill of fare that the guests can choose a balanced meal for themselves. We put more vegetables than ever before on the table for the help. We also talk proper diet and normal weight. * * * It is hard to estimate the number of people who have been benefited in this way, but the hotel is one of the most popular in the county.

This report suggests the idea that the food-selection project can not be considered completed in any community until its influence has reached those who cater to the increasing number of men and women who eat at boarding houses, restaurants, and hotels, making it possible for them to "choose a balanced meal for themselves."

The influence of the food-habits score has penetrated to the community food supply. Bakers who began by baking whole-wheat bread once a week now supply it daily, and whole-grain cereals and flours have appeared on grocery shelves. A grocer in a Maine village wanted to know what had caused the sudden change in the canned foods the women were buying. The explanation convinced him that it would pay to lay in a good quality of canned tomatoes and spinach. A local leader for a New York community rode into Rochester on the market wagon at an early hour several times a week to procure a supply of fresh spinach and other greens for the local store so that her cooperators might make a good score until their own gardens could meet the need.

THE HOT SCHOOL LUNCH

During the school year, practically all rural children between the ages of 6 and 14 take the midday meal away from home. For most rural families this is the principal meal of the day. The packing of the child's dinner pail, therefore, becomes one of the home maker's heaviest responsibilities, and the provision of a hot supplementary dish at school becomes a matter of community concern. This is especially true in view of the wide prevalence of malnutrition among school children. If school authorities are ready to cooperate, extension agents can help parents to understand the need of this work and lend their intelligent cooperation. If not, the establishment of the hot school lunch on a permanent basis may be made one of the chief aims of the local extension program.

In many States extension workers were the first public agents to call attention to the need for the hot lunch in rural schools, to show how to organize and conduct it, and to demonstrate definitely its value in improving the physical condition and scholarship of the child. Recently, the movement for hot lunches has begun to gather momentum within the school system itself. No community organized for extension work, however, should rest content until it is assured that this phase of community housekeeping is permanently and competently looked after.

The most effective work has been done where the hot school lunch is an integral part of the community nutrition program. California has made it a part of a cooperative child-feeding project in which parents and children are the demonstrators and a number of organizations unite in carrying out the plans. In Arkansas women's home demonstration clubs have been canning soup mixture and meat stock and sending committees of two or three members to the school to prepare and serve hot soup or cocoa during the colder months. Through its home demonstration clubs Alabama has been working on better-packed school lunches, which are eaten under supervision. New Mexico has found the hot school lunch the best entering wedge for work in family food selection. Nevada has made the hot lunch pivotal in its "keep growing demonstrations" for school children. Massachusetts has conducted tours to show parents, teachers, and superintendents who are interested in putting in the hot school lunch the best that the county already has to offer. Texas, Georgia, Missouri, Kansas, and other States reported successful efforts to get the need and the methods before the community and before teachers' institutes.

In 1922 and 1923 Ohio conducted a state-wide school-lunch drive which deserves the careful study of other States. The elements of success in this drive seem to have been: (1) The adoption of the project as a part of the community and county extension program, and appointment of qualified, permanent township project leaders; (2) a systematic plan of cooperation with the county and local school people and other interested organizations; (3) a strong publicity program for State, county, and community; and (4) the work of trained local leaders. Three county training meetings led by home demonstration agent or specialist are conducted in counties where the work is taken up for the first time, to show needs and possibilities, to report progress, and to make plans for the following year. These meetings are held in fall, midwinter, and spring. For the second year's work only the fall and spring meetings are necessary. The township leaders train community leaders.

In 1922 Ohio trained 109 township leaders in 25 counties and established 173 hot lunches. The 1923 report shows that the work has gone into 18 counties, where 210 leaders were trained and 239 school lunches established.

NUTRITION DEMONSTRATIONS AND HEALTH EDUCATION FOR CHILDREN OF SCHOOL AGE

In 1921 and 1922 a number of States reported use of the nutrition demonstration, or nutrition class, as a major line of work in the foods and nutrition project. The procedure of the nutrition demonstration is definite; the results as measured by gain in weight and improvement in appearance and mental alertness of the selected underweight children are often remarkable; and the demonstration as a whole is calculated to attract the attention of even the most self-satisfied community. It is sometimes easier to work in the school with the cooperation of an interested teacher and school superintendent or of a parent-teachers' association, with the children ready at hand, than it is to get together a group of busy mothers and fathers. For this and other reasons, home demonstration agents used this method extensively when it was first developed, and obtained results that were used effectively as a basis for publicity.

In 1922, Georgia, Massachusetts, Minnesota, Montana, and Washington trained local leaders and used them more or less extensively to work with groups of underweight children. The work of these leaders on simple food and health habits brought improvements in a large number of children and served another important purpose, in that it convinced the community that only good food habits can build the bodies of growing children as they should be built.

Georgia and Montana, in 1923, continued to use the demonstration as their major line of nutrition work, finding it possible to gather interested groups of parents for parallel work and to obtain good home and community cooperation. This is well illustrated by the following typical account of work in Wilcox County, Ga., in which the county medical and nursing association cooperated:

> A nutrition class was organized in the fall of 1922 in the fourth grade of the Rochelle School. This class was conducted by the home demonstration agent, who was assisted by the local parent-teachers' association. Fifty-nine per cent of the children were found to be underweight. At the end of 20 weeks each child had made definite gains, two had gone above the average weight, and seven physical defects had been removed. The class has been largely responsible for interesting the people throughout the county in nutrition work. As evidence of this interest, in two of the consolidated schools in this county each child was weighed monthly. Each child is to have a physical examination. A hookworm campaign is to be put on, and a definite place for health examinations has been set aside in the new school building. * * * There is a steady increase in the production of milk, fruits, and vegetables in the State as a result of nutrition work. Because of the interest created, a larger percentage of club girls are planting winter gardens.

During 1923, 87 nutrition classes were held in Georgia with the cooperation of the extension service, and 3,105 children were enrolled who were 7 per cent or more underweight. These classes usually lasted from 12 to 16 weeks. At each meeting a talk on some food or health habit was given, and the children were weighed. Monthly weighings followed the close of the class and monthly food-habits scores were kept. The nutrition specialist compiled a suggested nutrition program for parent-teachers' associations, of which there are more than 300 in the State. This program included monthly weighings, use of the classroom weight record, method of keeping the nutrition score card, and a weekly lesson on diet.

LEADERSHIP IN HEALTH EDUCATION

The reports for 1923 show that on the whole less emphasis was placed on the nutrition demonstration than in 1922 and more on helping groups of teachers and local leaders to present the idea of good food and health habits in an attractive way to all children in the school, rather than to selected underweight groups. The experience of 1921 and 1922 convinced many extension workers that this method makes for a more economical expenditure of time than the routine of the nutrition class.

Nevada used " keep growing demonstrations " for groups of underweight children to awaken indifferent communities to the great need of feeding children more carefully and insisting on their having more sleep and rest. Parallel work in which mothers took part was done with other children in the same school. Washington reported helping to establish extension work in health education through training teachers and local leaders to present food talks in an attractive way, and through use of a food-habits score. Nebraska reported signal success through a similar plan.

There has been a growing tendency to develop an all-round nutrition program, in which food-selection demonstrations are presented by trained local leaders to community groups, who give attention to parallel problems of the farm and community food supply; groups of teachers are assisted at the institutes and special meetings in presenting food and health-habits work to their classes; the school lunch is developed by a joint committee from the community and the school, and the home and school program is drawn together by community meetings in which both children and adults take part. At the close of 1923, Arkansas planned an intensive five-months' program of this nature for communities in five counties.

EDUCATIONAL MILK-FOR-HEALTH CAMPAIGNS

The educational milk-for-health campaign has evolved from the work carried on during the World War under the joint leadership of the Dairy Division of the United States Department of Agriculture and the Extension Service. The original purpose of the work was to teach the food value of milk and to utilize surplus milk and dairy by-products. The emphasis is now on the use of milk in sufficient quantities as an indispensable protective food. Milk campaigns[2] are an effective part of the propaganda for better food habits, inasmuch as it has been shown that adults and children in the rural districts, as well as in cities, use much less than the optimum amount of milk. The success of such campaigns is due to meeting a need shown by local surveys, mobilizing all interested agencies in the community, setting up a thorough committee organization, developing local initiative, following the period of preliminary preparation by a short period of intensive effort, utilizing a large number of carefully trained volunteer workers, and obtaining excellent newspaper and other publicity to convey the idea to the public in the campaign area.

A carefully planned follow-up consisting of such features as school milk service, milk-feeding demonstrations, and continued publicity is essential. Follow-up surveys indicate the degree of reduction in malnutrition and the improvement in health which usually accompanies an adequate use of milk.

Louisiana, which has carried on a number of successful campaigns, reported that consumption of milk increased considerably in all communities where these campaigns were conducted and that many families purchased cows in order to have milk for the children to drink.

IMPROVING THE FARM FOOD SUPPLY

THE FAMILY GARDEN

Improving the farm food supply is a fundamental part of the long-time program of home demonstration work in certain States. In some States productive activities appear at designated seasons in the annual round of club work, especially for the girls; in others, club members may join one or more productive clubs, and a certain amount of work in foods and clothing is required each year. Home demonstration work in the Southern States, indeed, started through work with tomatoes, which were planted in such quantities as to insure not only an abundant home supply, both fresh and canned, but a surplus for sale. Club girls and members of women's home demonstration clubs usually make more and more ambitious garden demonstrations as the years pass. The planting of winter gardens, featuring root vegetables and hardy greens, is advocated in regions where the climate permits. Extension workers often give assistance in marketing fresh garden products.

In the Northern States, garden clubs have lost some ground with the boys and girls, and have never been an extension project for the women. After the appearance of the food-habits score card, however, the food garden became an inseparable part of the family nutrition standard. During 1922 and 1923 more garden plans were put out by garden specialists, and a larger number of carefully planned gardens were planted in these States than at any other time since the close of the World War.

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[2] The procedure of the milk compaign is fully outlined in Dept. Cir. 250 of the U. S. Department of Agriculture, Educational Milk-for-Health Campaigns.

Connecticut has used the food-habits score as the basis for a health garden for club members, featuring especially the growth-promoting and body-regulating vegetables that the boy might not otherwise be interested in, such as cabbage, string beans, carrots, tomatoes, and onions.

In some Southern States, the use of the food-habits score card has still further stimulated garden planting, as the following report by the Oklahoma nutrition specialist indicates:

> Realizing that it would be necessary for our food-selection demonstrators to grow a greater variety and more abundant supply of vegetables and fruits for use the year round, I asked our horticultural specialist to meet with each of my food-selection groups and give them some special work. * * * We are working for a greater variety of vegetables from early spring until the killing frosts in the fall, with a surplus for canning and storing. We are well satisfied with the first year's attempt, in spite of extreme wet weather in the spring and extreme drought during the summer. * * * On November 6 one food-selection demonstrator in Garfield County had 16 different kinds of vegetables growing in her fall garden. On October 20 I visited the curb market in Okmulgee and saw green string beans, turnips, cucumbers, peppers, sweet potatoes, eggplant, carrots, spinach, corn, and tomatoes that had been brought in by our food-preservation and food-selection demonstrators.

THE FOOD-PRESERVATION BUDGET

The food-preservation budget demonstration, like the food garden, is an outgrowth of the desire to live up to a food-habits standard. The food-preservation budget is a calculated, rather than haphazard, provision for the winter's need of fruits, vegetables, and eggs, and for the summer's supply of meat. The demonstration may cover from 15 to 18 months, and includes estimating the kinds and quantities of foods to can, store, and otherwise preserve; making a garden plan to correspond; laying by the food in the desired form and quantity; and recording at the beginning of the next growing season how well the calculations have met the family food requirements. It is also possible to estimate the amount of money saved by raising and preserving the food instead of buying it at market prices. Budgets for different localities vary with the length of the growing season and with the local products available.

Several States made the food-preservation budget a major project, popularizing the idea by means of fair exhibits showing stored, dried, and canned products sufficient in quantity and variety for one person for eight months. California, which started the work in 1922, reported that a number of demonstrators successfully completed this 18 months' project. A number of States reported using the budget to renew interest in canning clubs.

North Dakota made the following report on the food-preservation budget, which was taken up by 47 home-makers' clubs in 24 counties under direction of the nutrition specialist:

	Number
Homes influenced to use more fruit	54
Homes influenced to use more vegetables	158
Homes influenced to use better practices in food selection	880

Food canned, as reported by budget demonstrators:	Quarts
Fruit	46.032
Vegetables	26.868
Meat	15.611
Jelly and pickles	28.587

The food-preservation budget and the family food garden make a good cooperative project between the nutrition specialist and the specialist in horticulture or vegetable gardening. New York and Oklahoma published food-budget garden bulletins in 1923.

MILK AND DAIRY PRODUCTS

Increasing the milk supply, caring for milk in the home, and improving the quality of farm butter and cottage cheese are phases of the long-time home demonstration program in one section of the country which were emphasized again in 1923. The purchase of family cows was encouraged as a result of milk campaigns, work in food selection, use of the food-habits score, demonstrations in nutrition, and other methods of calling attention to an inadequate farm milk supply where this existed.

In sections having a seasonal surplus of unmarketed milk and where climatic conditions permit, farm women have been taught to make Cheddar and Neufchatel cheeses, thus extending the supply of milk products more evenly over the year. This work has been done mainly in Montana, Wyoming, Nevada, Utah, Colorado, North Dakota, Nebraska, Kansas, Arkansas, and New Hampshire. Help in improving the quality of cottage cheese has been given wherever it was needed. In 1923, 241 agents reported that 5,645 home makers were assisted in butter and cheese making. Training in butter judging, followed by butter contests, has been one means of raising the quality of farm butter.

FOOD PREPARATION

Food preparation has been combined with food selection and meal planning in most States. The dishes selected for demonstration feature the foods recommended in the food-habits standard; that is, milk, vegetables, fruits, and whole-grain products. Some States have successfully carried food-habits demonstrations without food preparation, but many specialists believe that the demonstration or group preparation of a few appropriate dishes helps to popularize the work, to increase the use of recommended foods, and to set standards for the finished products.

Extension workers in several States where food-habits demonstrations are handled through local leaders think that combining food preparation with food selection gives the leaders confidence. However, there is a real danger that the preparation will distract attention from the discussion of selection or that the combination will prove too heavy a burden. New York employs three specialists to handle the food-selection project and a food-preparation specialist who gives a generous share of her time to training groups of local leaders in food preparation, emphasizing good technique and standards. Judging the foods prepared is also a part of such training. The work of these leaders has raised appreciably the standards of food preparation. This is especially evident in the quantity and quality of foods exhibited at local fairs. There has been a wide spread of influence of this particular type of food-preparation work.

FOOD PREPARATION IN GIRLS' CLUBS

In some States food preparation and selection are given attention in each year of club work for girls. Other States have organized the work through meal-preparation clubs, featuring the selection and preparation of dishes appropriate for breakfast, dinner, or supper for the girls themselves and for persons of different ages.

In this kind of club the dishes are so selected that a complete, though very simple, meal may be prepared and served at as many meetings as possible. The work interests the girls greatly and has served to make them more useful in the home, especially when some training in household duties like dishwashing and cleaning is included in the club program.

BREAD-MAKING CONTESTS

Bread making was emphasized in many States where the use of soft-wheat flour creates special problems. Several States require work in bread making in connection with each year of work in the girls' clubs. A large number have promoted bread or biscuit contests in community, county, district, and State for club girls and for women as well. In some States the contest is confined to a single product, such as biscuits or raised (light) bread; in others, bread, muffins, and biscuits may all be included in the requirements. (Fig. 6.) Winners in community contests are eligible to compete for county honors, and county champions may compete in district and finally in State contests. Besides causing more and better bread to be made, these contests have been invaluable in calling the attention of the public to nutrition work by extension agents.

FOOD PRESERVATION

From the first year of home demonstration work up to and including 1923, food preservation has been a major project in most Southern States, where it has been systematically developed, not only as a means of supplying foods needed in the winter dietary, but as a major income-producing industry for members of girls' and women's clubs. Gardens and orchards have been cared for to insure a surplus of products for sale, and the abundance of native fruits has been skilfully utilized to this end. Since 1917, the canning of meat, fish, and game has grown to large proportions. Canning has been done in tin as well as in glass, and the pressure canner and pressure cooker have come to be used almost exclusively for nonacid vegetables and for meats. In this connection canners have been bought cooperatively by home demonstration clubs, and numerous community canning centers have been opened.

Almost every Southern State has at some time employed at least one specialist to give full time to food-conservation work, and several States have employed women marketing specialists. Standard products and standard packs have been developed. Judging and scoring have been important parts of the training of girls in canning clubs, each girl being required to exhibit a certain number and variety of products at the local fair. County, State, and interstate canning contests have added interest and incentive to the work. Similar work has been done with women in home demonstration clubs. Exhibits of prize-winning products at State fairs are attractive and impressive. Thus, a high degree of technical skill has been developed in a large number of girls and women, and a profitable outlet has been created for home-manufactured products.

In 1923 meat canning was emphasized especially because of the low price of cattle. The account of community meat-canning demonstrations written by the New Mexico State home demonstration leader is typical of the work done in many States:

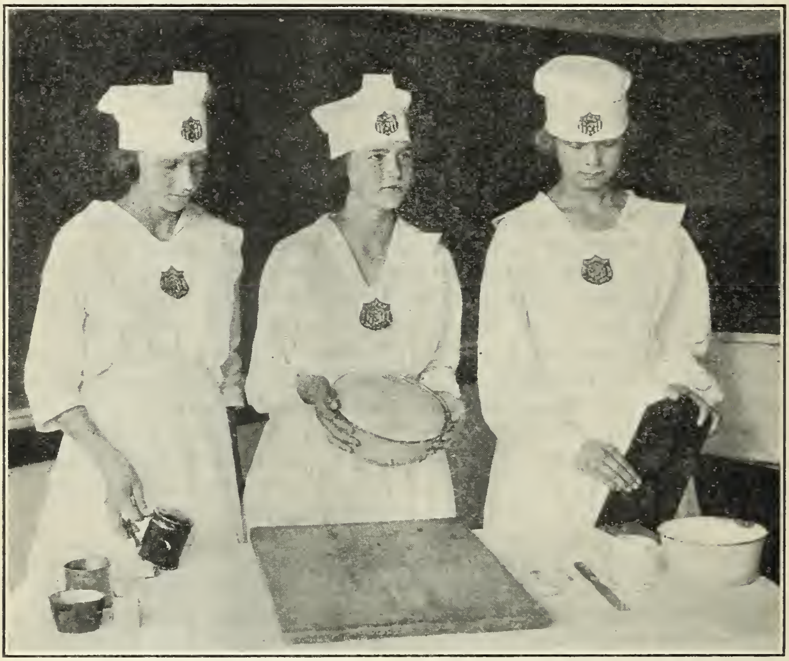

FIG. 6.—Girls' club bread-making demonstration. Community, county, district, and State contests encourage the use of better methods in making bread, biscuits, and muffins, and provide effective publicity for the work in foods and nutrition carried on by extension agents. Some States hold bread-making contests for women as well as for girls. As a result of extension work, better methods of bread making were reported to have been adopted in 83,502 homes during 1923. (Photograph furnished by the Minnesota Extension Service)

> The demonstrations averaged a half beef completely canned, soup and all, in one day. All possible methods of canning were demonstrated: Some meat was canned raw and some after having been steamed in a pressure cooker, boiled, or roasted; some was canned in the form of baked spareribs, fried steak, Hamburg steak, meat loaf, Swiss steak, en casserole, meat and vegetable stew, and soup from scraps and bones. Drippings were used to partly cover the meats. This wide variety of products proved especially appealing, and the community organization of the work made it possible for homes that hitherto had lived through the summer on ham and "salt side" to have a summer supply of varied meat dishes ready for the table.

Mississippi reported that hundreds of families purchased steam-pressure canners and sealers and are using these to conserve their fresh pork products such as sausage and spareribs, and to convert into broiled steaks, beef roast, and Hungarian goulash the surplus cows that are an expense to feed through the winter. Many planters have furnished their tenants with this home-canned meat throughout the year, and in several counties it is beginning to be marketed locally. Some people have become so expert that they demonstrate the process to other communities, or take over the canning for a family or a community at a fixed charge per can. In some places, all the farmer has to do is to drive his animal to the community cannery and to take it back later in tin cans.

Reports show that 62,476 women and 48,325 girl club members carried on demonstrations in food preservation, that 284,639 home makers adopted better practices in connection with food preservation, and that 9,516,751 quarts of products were canned, 5,359,218 quarts brined and cured, 3,023,877 quarts of other products put up, and 1,319,215 pounds of fruits and vegetables dried, as results of extension work in 1923. Those familiar with extension work will readily understand that the figures recorded are usually only a part of the results actually obtained directly or indirectly through extension teaching.

STANDARDIZING PRODUCTS FOR MARKET

In addition to helping girls and women to find local markets for high-grade miscellaneous products, many States have standardized for sale a small number of products that do not compete with those put up by commercial firms. Thus Florida has specialized on crystallized fruits and guava conserves; South Carolina on Dixie burgoo and soup mixture; Georgia and Mississippi on preserved figs and other native fruits and vegetables; Texas on meat products and native fruits; North Carolina on the products of native and improved varieties of the Scuppernong grape.

In certain States the food-preservation project has ceased to be a part of the program for women in localities where it was evident that improved practices had been generally adopted. Canning clubs for girls and boys still flourish, however, with the same features of judging, scoring, exhibits, and contests as have been described above. In Massachusetts and California, food-preservation specialists interested in production on the factory scale have trained women in canning and preserving for market, and a number of individuals and local groups have built up profitable businesses. California has emphasized the drying of fruits for home use and for sale. A few community canning plants have successfully survived the war period.

GROWING USE OF LOCAL LEADERS

The growing use of trained local leaders in all phases of the foods and nutrition project deserves especial comment. The term "local leaders," as here applied, means women who are selected to represent their communities because of obvious qualifications, and who are called together at one or more central points in the county to receive definite training in some line along which their communities feel the need of help. These women transmit to small organized groups in their own communities the practices, points of view, and related subject matter they have received, establish and help to supervise result demonstrations, and bring back to the specialist or agent reports of the improved practices that have resulted. (Fig. 7.)

Reports show that local leaders were used by some 20 States in 1923 to handle, under supervision, one or more phases of the foods and nutrition work, including family food selection and meal planning; corrective feeding for constipation, overweight, or underweight; food preparation; nutrition demonstrations and health education in schools; standards of health; training in judging and scoring; young-mothers' project; and girls' club work in canning, food selection, and meal preparation.

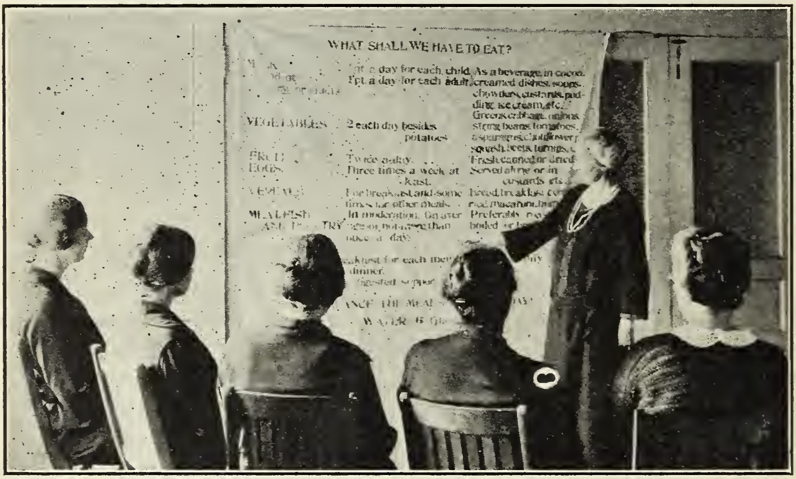
WHAT SHALL WE HAVE TO EAT?
a day for each child
1 pt. a day for each adult
As a beverage, in cocoa, creamed dishes, soups, chowders, custards, pudding, ice cream, etc.
VEGETABLES
2 each day besides potatoes
FRUIT
Twice a day.
Fresh, canned or dried
EGGS
Three times a week at least.
Served alone or in custards etc.
MEAT, FISH
In moderation.
dinner.

FIG. 7.—A local leader instructing a group of women in proper food selection and meal planning. County home demonstration agents select and train qualified women as local leaders to supervise the work in foods and nutrition among groups of women in their own communities. Agents' reports show that 285,933 home makers improved their methods of food selection during 1923

Local leadership is fruitful of results in proportion to the care taken in developing the work in local communities. This includes thorough preliminary work in interested communities to show the need for the work and its scope and how it will be handled through the local leaders; selecting leaders; limiting the training of leaders to their capacity and to the needs of their communities; supplementing the training with written outlines for subject matter and methods; and supervising their work. When local leaders are used, the work requires a clearer vision of goals and methods on the part of specialists and agents, a more practical application and better organization of subject matter, and better organization of follow-up work and spread of influence than is customary when agents meet local groups directly. Local leadership results in better extension work on the part of the paid extension worker, and gives the local people a share in carrying out the project which they would not otherwise have.

NEED FOR A LONG-TIME PROGRAM

As a group the Southern States have had a more uniform foods and nutrition program than the rest of the country, but usually there has been an insufficient development of the food habits and food-selection aspects. In other sections the importance of food-supplying and income-producing activities has just begun to be appreciated. It seems possible, therefore, for each State and section, if not for the country as a whole, to work out a long-time program giving adequate consideration to all aspects of the foods and nutrition project, setting permanent and annual goals, and developing methods in conformity with the program.

WESTERN STATES' CONFERENCE

At the Western States' conference, held in November, 1923, at Fort Collins, Colo., a program for the seven-year period 1924 to 1930 was drawn up for the foods and nutrition project and two major agricultural projects. These programs were recommended for adoption, in so far as applicable, by each State in the group. The conference was attended by extension directors, specialists in appropriate lines or State leaders serving as specialists, and by representatives of the United States Department of Agriculture. Committees made up from these groups considered existing problems common to the region, available data bearing on the extent of these problems or on their solution, and lines of work that were needed as well as lines already being carried on.[3]

Some of the recommendations in the nutrition program which seem applicable to the majority of States may be summarized as follows:

(1) The assembling of sufficient data regarding nutritive conditions to make known the existing situation and to guide future action; (2) the working out of a cooperative State nutrition program with interested agencies; (3) a study by the State extension service of the existing food supply, with the object of making this supply adequate for health and of making each locality self-sustaining in so far as this proves economically sound; and (4) the establishment of a nutrition council within each agricultural college which shall bring together representatives of all extension and research agencies whose work touches the various aspects of the problem.

Following are the methods that were recommended:

(1) Emphasizing the connection between food habits and physical condition; (2) correlating the principles of human nutrition with those of animal and plant nutrition as applied in improved farm practice, and giving the nutrition message to all members of the family, not merely to women and girls; (3) training people to visualize the characteristics of positive health, especially in the child; (4) formulating points of view to be developed as well as practices to be adopted; (5) formulating definitely the results to be expected from these improved practices and planning adult and junior result demonstrations accordingly; (6) utilizing the contribution of boys' and girls' clubs toward the nutrition program to the fullest possible extent through growth work, team demonstrations, and achievement day programs; and (7) developing increasingly effective publicity.

Each State was urged to set for itself an increasing annual goal in terms of a percentage increase in the number of contacts made, number of improved food and living habits established, and number of persons improving in nutritive condition; and to measure progress toward community goals by surveying the community to learn the number of people to be reached and estimating the persons already reached.

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[3] Reports of these committees have been published in U. S. Dept. Agr. Cir. 308, An Extension Program in Range Livestock, Dairying, and Human Nutrition for the Western States.

SUGGESTED FAMILY NUTRITION STANDARD

It is evident that through a well-developed foods and nutrition project we are building toward what might be called a comprehensive family and community nutrition standard. In view of the success that has attended the use of standards in extension teaching, a family nutrition standard that has commended itself to nutrition specialists is suggested below. Some or all of these points have been emphasized in every State program, and such a standard might well be in score-card form for the use of especially progressive operators. It might also be supplemented by a community nutrition standard, which would set out in similar fashion the elements of the community nutrition program.

SUGGESTED FAMILY NUTRITION STANDARD

(1) Physical condition of members:
  Each individual within the zone of optimal weight for height, age, and type.
  Each individual showing characteristics of positive health.
  Each individual free from minor ailments attributable in large measure to faulty diet.
(2) Food-selection habits of members:
  Each member scoring 85 to 100 per cent, according to food-habits score card.
(3) Family food supply:
  Adequate food garden.
  Food-preservation budget supplying necessary foods for winter months.
  Adequate supply of eggs, poultry, milk, and dairy products of good quality, either raised on the place or available in near-by markets.
  Adequate meat supply.
(4) Food preparation:
  Essential foods well prepared.
  Variety in preparation of essential foods.
(5) Menu making and serving:
  Meals constructed to tempt the appetite, please the palate, and economize time, effort, and money.
  Meals simply and attractively served.

CONCLUSION

During 1923 signal progress was made in most of the 48 States in one or more phases of the foods and nutrition project. The increasing use of local leaders testifies to a better definition of goals and better methods of reaching them. The general public is in a more receptive frame of mind than at any time since the days of war conservation. Nutrition specialists are gradually increasing in number, in training, and in extension experience. The work, however, has been handicapped to some extent by a very large turnover in the specialist leadership during the last three years.

A comprehensive long-time program is needed in every State in which such a program is not already in operation. Likewise, a need exists for a cooperative State program which will effectually yoke all interested agencies for teamwork toward a common goal. Family and community nutrition standards should be determined and utilized as guides for nutrition teaching and as incentives to action. Boys' and girls' clubs should be mobilized effectively to promote the nutrition program through growth work. Visualization of the characteristics of the healthy child should be more generally used to motivate family food selection and child care and feeding. Reports indicate that local leadership and better methods of measuring the spread of influence in the community are being used more widely.

STATISTICAL RESULTS

Summary of extension work in foods and nutrition in the 48 States, 1923, reported by home demonstration agents, county agricultural agents, and club agents

Line of work	Total reported by all agents		Reported by home demonstration agents		Reported by county agricultural agents		Reported by club agents	
	Agents reporting	Number	Agents reporting	Number	Agents reporting	Number	Agents reporting	Number
General:								
Communities participating	1,101	12,725	774	10.388	226	1,566	101	771
Voluntary leaders assisting	898	15,619	599	11,862	202	2,920	97	837
Days' assistance rendered by leaders	834	39,806	561	26,608	188	7,558	85	5,640
Days specialists helped	814	4,884	526	3,040	201	1,450	87	394
Days agents worked	1,016	47,467	690	41,766	236	2,350	90	3,351
Meetings at demonstrations	943	33,833	685	29,576	184	2,721	74	1,536
Attendance at such meetings	935	637,930	685	534,118	180	47,533	70	56,279
Other meetings in relation to projects	650	12,368	461	8,923	127	1,673	62	1,772
Attendance at such meetings	647	495,703	459	390,072	126	63,178	62	42,453
Dairying:								
Homes assisted in butter and cheese making	240	5,645	8	313	230	5,319	2	13
Food selection:								
Adult demonstrations	709	57,003	573	54,389	130	2,379	6	235
Homes using more fruit	779	120,899	645	109,160	124	11,073	10	666
Homes using more green vegetables	818	148,536	676	134,755	134	12,542	8	1,239
Homes using more milk and other dairy products	796	155,581	646	131,066	142	23,272	8	1,243
Homes using more coarse cereal products	537	55,540	455	47,365	78	7,378	4	797
Different homes adopting better practices	1,028	285,933	785	239,082	232	44,555	11	2,296
Bread making:								
Adult demonstrations	362	15,980	346	15,734	16	246	-------	---------
Junior[1] demonstrations	610	24,206	449	20,216	114	1,932	47	2,058
Different homes adopting better practices	665	83,502	558	78,752	79	3,651	28	1,099
Meal preparation:								
Adult demonstrations	335	14,727	307	14,150	27	539	1	38
Junior[1] demonstrations	443	16,591	326	14,084	65	842	52	1,665
Homes adopting better practices	659	77,223	543	73,114	78	2,919	38	1,190
School lunches:								
Adult demonstrations	292	8,474	246	8,139	46	335	-------	---------
Junior[1] demonstrations	252	13,003	211	10,114	26	801	15	2,088
Homes adopting better practices	525	58,952	445	55,625	67	2,617	13	710
Lunches prepared by junior members	36	192,666	7	15,920	15	32,088	14	144,658
Other food preparation:								
Adult demonstrations	113	3,925	106	3,874	6	43	1	8
Junior[1] demonstrations	127	5,388	113	5,044	7	187	7	157
Homes adopting better practices	227	27,823	205	27,119	19	599	3	105
Child feeding and care:								
Result demonstrations	368	13,509	306	12,992	59	506	3	11
Homes adopting better practices	576	70,359	469	60,594	103	9,252	4	513
Food preservation:								
Adult demonstrations	541	62,476	498	61,049	41	1,291	2	136
Junior[1] demonstrations	783	48,325	500	38,864	190	4,972	84	4,489
Homes adopting better practices	1,000	284,639	718	235,594	217	37,880	65	11,165
Quarts canned	875	9,516,751	598	8,791,974	184	511,032	93	213,745
Pounds dried	360	1,319,215	345	1,302,845	11	15,826	4	544
Pounds brined and cured	275	5,359,218	251	5,337,911	14	18,143	10	3,164
Quarts of products otherwise preserved	645	3,023,877	569	2,932,001	45	68,651	31	23,225

Boys' and girls' club members.

ORGANIZATION OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

July 2, 1925

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